

Atty Dkt 9000-0030.10

PATENT

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Patricia R. James  
Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

JIANG et al.

Serial No.: 09/234,733

Group Art Unit: 1643

Filing Date: January 21, 1999

Examiner: Unassigned

Title: CAMP FACTOR OF STREPTOCOCCUS UBERIS

**REQUEST FOR A CORRECTED FILING RECEIPT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Please furnish the undersigned with a corrected filing receipt for the above-identified application. The corrections needed are as follows:

Under Title please replace "OD" with -OF-.

Attached is copy of the Filing Receipt with the correction highlighted. Also included is page 1 of Request for Filing and first page of the Application showing the correct spelling.

It is believed that no fee is due. If for any reason a fee is found to be necessary, our Deposit Account No. 18-1648 may be charged therefor.

Respectfully submitted,

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REGISTRATION NO. 1234

Bozicevic, Field & Francis

PTO-102X  
(Rev. 8-95)

RECEIVED

FEB 16 1999

FILING RECEIPT  
FEB 18 1999



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
09/234,733	01/21/99	1643	\$380.00	9000-0030.10	14	12	1

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*Robert & Reed*

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Application Processing Division's Customer Correction Branch within 10 days of receipt. Please provide a copy of the Filing Receipt with the changes noted thereon.

Applicant(s)

✓ MIN JIANG, SASKATCHEWAN, CANADA; ✓ ANDREW A. POTTER,  
SASKATCHEWAN, CANADA; PHILIP RONALD MACLACHLAN,  
SASKATCHEWAN, CANADA.

CONTINUING DATA AS CLAIMED BY APPLICANT-

THIS APPLN IS A DIV OF 08/658,277 06/05/96 PAT 5,863,543  
PROVISIONAL APPLICATION NO. 60/000,083 06/08/95

\* SMALL ENTITY \*

TITLE OF  
CAMP FACTOR ~~OX~~ STREPTOCOCCUS UBERIS

PRELIMINARY CLASS: 424

DOCKETED

**REQUEST FOR FILING  
CONTINUATION/DIVISIONAL APPLICATION**

Box Patent Application  
Assistant Commissioner for Patents  
Washington, D.C. 20231

**EL273158305US**

☒ "Express Mail" Mailing Label No. EL273158305US Date of Deposit JANUARY 21, 1999  
I hereby certify that this paper or fee is being deposited with the United States Postal Service  
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Warren Jackson  
(Typed or Printed Name of Person Mailing Paper or Fee)

[Signature]  
(Signature of Person Mailing Paper or Fee)

Sir:

This is a request for filing a \_\_\_ continuation X divisional application under 37 C.F.R. 1.53(b)(1), of pending prior application serial no. 08/658,277 filed on June 5, 1996, which claims priority to U.S. provisional patent application serial no. 60/000,083 filed on June 8, 1995, of Min Jiang, Andrew A. Potter and Philip R. MacLachlan for **CAMP FACTOR OF *STREPTOCOCCUS UBERIS***.

1. X Enclosed is an application filed under 37 C.F.R. 1.53(b)(1). No new matter has been added.
2. X One verified statement(s) of small entity status  
    \_\_\_ enclosed.  
    X filed in prior application serial no. 08/658,277 filed on June 5, 1996 (copy enclosed).
3. X The filing fee is calculated below:

A. Basic Application Fee		\$760.00
B. Total Claims 12 - 20 = 0	x \$18.00	0

Total Application Fee (Total of A, B, C, & D)

760.00

9000-0030  
PATENT

CERTIFICATE OF MAILING BY "EXPRESS MAIL"  
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Date of Deposit JUNE 05, 1996

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I hereby certify that this paper or fee is being deposited with the United States Postal Service at Express Mail Post Office to Addressee Service on June 5, 1996 at the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20230

MARILYN B. MCKENNA

(Typed or Printed Name of Person Mailing Paper or Fee)

Marilyn B. McKenna  
(Signature of Person Mailing Paper or Fee)

CAMP FACTOR OF STREPTOCOCCUS UBERIS

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Cross-Reference to Related Application

This application is related to provisional patent application serial no. 60/000,083, filed June 8, 1995, from which priority is claimed under 35 USC §119(e)(1) and which is incorporated herein by reference in its entirety.

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Technical Field

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The present invention relates generally to bacterial antigens. More particularly, the present invention pertains to the recombinant production of CAMP factor from *Streptococcus uberis* (*S. uberis*) and the use of CAMP factors in vaccine compositions.

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Background

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*S. uberis* is an important cause of mastitis in dairy cattle and is responsible for about 20% of all clinical cases of mastitis (Bramley, A.J. and Dodd, F.H. (1984) *J. Dairy Res.* 51:481-512; Bramley, A.J. (1987) *Animal Health Nutrition* 42:12-16; Watts, J.L. (1988) *J. Dairy Sci.* 71:1616-1624). Since antimicrobial treatment is generally ineffective in treating *S. uberis* mastitis, the development of control measures must be based on an understanding of virulence factors and protective

summary of virulence factors

32; Leigh et al. (1990) *Res. Vet. Sci.* 49: 85-87; Marshall et al. (1986) *J. Dairy Res.* 53: 507-514).